

CIS 122—Algorithms and Programming

Quiz #3

August 5, 2004

Name:

The following program prompts the user for 50 ints and reads them into a vector. The largest element is then returned by the call to `max()`. Both `main` and `getNums` have been completed for you. Your job is to write the `max` function (remember also to add the forward declaration!).

```
#include <iostream>
#include <vector>
using namespace std;
```

```
void getNums(vector<int>& nums);
```

```
// FORWARD DECLARATION FOR max GOES HERE
```

```
int main() {
    vector<int> nums(0);

    getNums(nums);

    int biggest = max(nums);
    cout << biggest << endl;

    return 0;
}
```

```
// DEFINITION of max GOES HERE
```

```
// getNums is on the next page -- Only the comments are relevant to you
```

```

void getNums(vector<int>& nums) {
    /*
        SUMMARY:  prompts user repeatedly for int values, until the user indicates
                   that she is done.  Reads each value into nums
        SIDE-EFFECTS:  The cells in nums are modified to hold the user-supplied
                       int values.  The size of nums is set to be exactly equal to the number
                       of ints entered..
    */

    char done = 'n';
    int i = 0;

    while (done == 'n') {
        cout << "--> ";
        if (i >= nums.size())
            nums.resize(i + 10);
        cin >> nums[i];
        i++;

        cout << "Done? (y/n) ";
        cin >> done;
        cin.ignore(80, '\n');
    }

    nums.resize(i);
}

```